Cane Run Generating Station Natural Gas Combined Cycle Project

# Issue: For Contract Section Revision: 1

### **EXHIBIT U - TRAINING**

# 1 PART ONE - GENERAL

#### 1.1 SUMMARY

This section describes the Contractor's responsibilities in regards to personnel training.

Contractor shall develop, implement, and present a training program covering all aspects of the operation and maintenance of the Equipment and materials. Contractor shall also provide hands-on training for the operators during equipment and system commissioning when providing site services during these activities.

#### 1.2 SUBMITTALS

# 1.2.1 Proposal Submittals

Submit a summary of their proposed training program with their proposal including major topics, intended audience, number of sessions required to cover pertinent material, planned session durations, etc.

#### 1.2.2 Contract Submittals

The following items shall be submitted prior to the scheduled classroom training:

- Training course outline
- Detailed lesson plans
- Training manual
- Preliminary training schedule
- List of training aids
- Resume of the training instructor

### 2 PART TWO - PRODUCTS

#### 2.1 INSTRUCTORS

The Contractor shall use qualified trained personnel as instructors, fluent in both oral and written English. Personnel shall be employees of the Contractor's firm with a minimum of five (5) years experience with the firm and equipment. Instructors shall have previous experience in classroom and field training. Contractor shall use qualified instructors from sub-suppliers and Subcontractors when appropriate.

#### 2.2 TRAINING FACILITIES

When training occurs at the Job Site, the Owner will provide the training facilities and arrange for a computer projector. All other material, training aides, and handouts shall be provided by Contractor. Contractor shall contact the Owner to confirm the availability of resources prior to the training sessions.

### 2.3 TRAINING CONTENT

As a minimum the following training shall be provided:

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- On-Site classroom sessions for supervisory, operations and maintenance personnel in overview of equipment and general information pertinent to the operation and maintenance of the equipment
- On-Site walk-through for supervisory, operations and maintenance personnel to provide overall familiarization with the location and function of all major components and systems
- On-Site classroom and field sessions for specific groups of operations and maintenance personnel to cover group-specific aspects of the equipment

On-site training shall be provided in classroom format as well as via site orientation walkthroughs covering all aspects of operation and maintenance.

Training sessions may be videotaped by the Owner for use in follow-up and new hire training.

#### 2.4 TRAINING DOCUMENTS

The Contractor shall provide each participant in the training session a training manual. Use of PowerPoint presentations and with individual documentation handouts is expected. The training manual shall include operation and maintenance information for all equipment in the Contractor's Work. Training will include quizzes following each session. Contractor shall provide the electronic training files to the Owner.

### 2.4.1 Training Manual

The training manual content shall include but not be limited to:

- Training Objectives
- Equipment overview
- Major component description
- Controls: Including flow paths, instrumentation, controls, and interlocks
- Principal of operation including operating parameters, start-up, normal operation, shutdown, infrequent operations modes, and maintenance
- Support systems needed for operation
- Visual aids of equipment and system design

#### 2.4.2 Quizzes

Test questions with answers shall be prepared. Test questions shall be in the form of multiple choice or true/false format. No essay questions shall be used. Should the training session be presented more than once, a separate set of questions shall be prepared for each session. The test results shall be turned over to the Owner at the completion of the training sessions.

# 2.5 TRAINING SESSIONS

#### 2.5.1 Schedule

All or a part of the training shall be scheduled prior to initial start-up as required to allow the operating personnel to participate in the start-up of the systems.

## 2.5.2 Program Review

Contractor shall incorporate comments resulting from the review of all training materials.

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### 2.5.3 Class Size and Duration

Operating and Maintenance personnel will be selected by the Owner to attend the training sessions. Determination of the exact number of personnel involved will be made following a review of the Contractor's training program. Final classroom size may require the training to be conducted more than one time.

The maximum class size for training at the Job Site is approximately 20 students.

Training sessions on site shall be planned for eight (8) hours per day, not including a one (1) hour lunch period.